



A Tale of Two Corals Benchmarks

SC.6.N.2.3 Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.

SC.7.L.15.1 Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.

SC.7.L.15.2 Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.

SC.7.L.15.3 Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.



A Tale of Two Corals Vocabulary Sheet

- **Coral:** An invertebrate animal that is a type of cnidarian (related to jellyfish and sea anemones). Most corals are small and live in colonies. The colonies build huge skeletons that are made of calcium carbonate. Each new generation builds on top of the last generation. Over thousands of years, these tiny animals build massive underwater reefs. Coral reefs can be found in warm, tropical waters throughout the world.
- **Hybrid:** As used in the video, the term hybrid refers to offspring resulting from the interbreeding between two animals or plants that are genetically distinct. Hybrids can occur between different closely related populations (e.g. species and sub-species) or less closely related populations (e.g. genera and families). Often, the offspring of hybrids are not fertile.
- **Population:** A group of organisms of the same species that live in a specific geographical area.
- **Species:** A group of organisms that are closely related and can mate and produce fertile offspring.
- **Genes:** A set of instructions for an inherited trait. Each parent gives one set of genes to their offspring.
- **Genetic diversity:** As used in the video, genetic diversity refers to the number of different genes existing in a species. The greater the genetic diversity within a species, the greater that specie's chances of long-term survival. This is because negative traits (such as inherited diseases) become widespread within a population when that population is left to reproduce only with its own members.



A Tale of Two Corals Guiding Questions

1. What are the three corals that Dr. Fogarty is studying?
2. Describe at least two observations that Dr. Fogarty discussed that made her interested in studying these corals.
3. What is coral spawning? How does this information relate to the formation of the hybrid?
4. What role does genetic diversity play in the increase in hybrid coral populations?
5. What do you think will happen to these corals in the future? Describe at least two scenarios and the reasoning behind your decision.